

Agomet[®] F 121 AB

Fast curing methacrylate adhesive for series production processes

Characteristics The reaction adhesive Agomet F 121 AB bonds metals and plastics and cures at room temperature. Thanks to its very high curing rates, Agomet F 121 AB is ideally suited for bonding operations where, e.g. in series production, a short potlife is required. For a methyl methacrylate-based adhesive, Agomet F 121 AB features a very good thermal stability.

The adhesive has a potlife of 3 - 5 minutes. Just 6 - 8 minutes after bonding and curing at room temperature, the parts can be handled. The final strength is reached after about 2 hours.

Agomet F 121 AB comes as a two part system and can be applied 1:1 with standard dosing/dispensing equipment. All equipment parts coming into direct contact with the adhesive must be made of aluminium or stainless steel.

Bondable materials	Metals such as steel, aluminium, copper and their alloys, ferrites. Plastics such as ABS, polystyrene, rigid PVC, polycarbonate.
Viscosity (23 °C)	F 121 A: appr. 3,5 Pa.s F 121 B: appr. 3,5 Pa.s
Specific Gravity	appr. 1.0

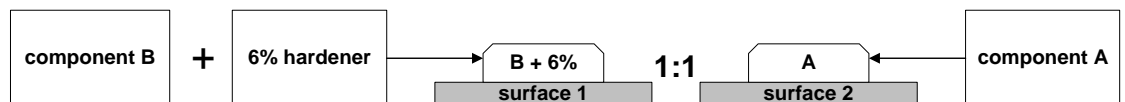
Processing

Surface preparation Even without a particular surface preparation, Agomet F 121 AB develops high strength values. As with all bonds, however, the bonding strength can be optimised by additional surface pretreatment: the parts must be free of loose impurities such as dust, oxides, grease, mould release agents, or plasticizers. A simple surface wipe with a solvent such as ethyl acetate (for plastics: alcohol) is adequate. Normal residues of rolling or drawing oil are relatively compatible with Agomet F 121 AB and can remain on the surfaces to be joined.

Amount to be applied The optimal amount of adhesive to be applied is 150 - 250 g/m².

Mixing ratio Add 4 to 10 % - preferably 6 % - hardener powder to component B and mix homogeneously. Then apply 1:1 together with the ready-to-use component A.

Bonding Apply component A to one surface and place an equally thick layer of component B (hardener already mixed in) on the other surface. The coated parts can be put aside for up to 30 minutes. Then the two surfaces are mated and kept under contact pressure. Curing starts only after both surfaces to be bonded have been joined. This separate processing allows bonding operations practically independent of the adhesive's potlife.



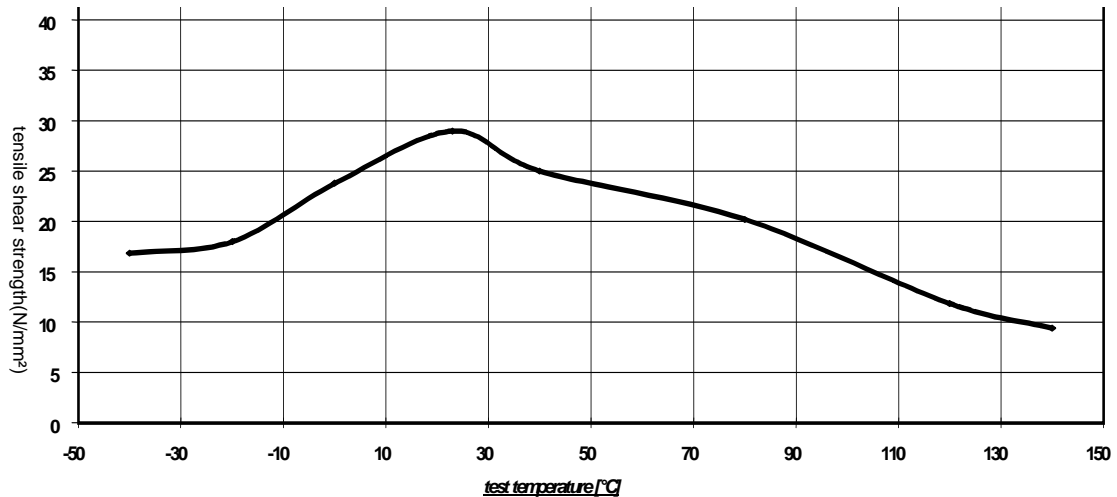
Caution: Never mix hardener into Component A !

The adhesive can be applied with dosing/dispensing equipment, even by placing components A and B (incl. hardener) on top of each other on one of the surfaces to be joined. In this case, however, the parts must be mated immediately.

Bonding performance

Tensile	- Aluminium/Bondur F 44 (AlCuMg2pl)	N/mm ²	appr. 28
Shear Strength	- Brass	N/mm ²	appr. 23
	- Steel	N/mm ²	appr. 20
	- Rigid PVC		material rupture
	<i>according to DIN 53 283</i>		
<i>test specimen 100 x 25 x 1.6 mm; bonded area 3 cm²; pretreatment: degreased, roughened</i>			
Peel Strength	- Aluminium (AIF 13.3)	N/mm	appr. 2
	<i>measured in the T-Peel Test according to DIN 53 282,</i>		
<i>test specimen: 130 x 30 x 0.5 mm; bonded area 3 cm²; pretreatment: roughened</i>			

Dependence of tensile shear strength on test temperature



According to DIN 53 283; degreased and roughened: grain 100; test speed: 15 mm/min.

Advice

Shelf life The product has a shelf life of 6 months in the original unopened container. The date of expiry is indicated on the label.

Handling Precautions

Caution

Our products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in the Material Safety Data sheets for the individual products and should be referred to for fuller information.

All recommendations for the use of our products, whether given by us in writing, verbally, or to be implied from the results of tests carried out by us, are based on the current state of our knowledge. Notwithstanding any such recommendations the Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for his intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility therefore. The Buyer shall ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with and subject to our general conditions of supply.

Huntsman Advanced Materials

Duxford, Cambridge
England
CB2 4QA
Tel: +44(0)1223 832121
Fax: +44(0)1223 493322
www.araldite.com

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